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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/524,916

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Kouji Nomura

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EXAMINER

GOFF II, JOHN L

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

12/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/524,916	Applicant(s) NOMURA ET AL.	
	Examiner John L. Goff	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2 and 7-12 is/are pending in the application.
- 4a) Of the above claim(s) 7 and 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 and 9-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/29/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed on 9/22/08.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 2 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya et al. (U.S. Patent 5,962,068) in view of either one of Newkirk et al. (U.S. Patent 5,143,779) or Coates et al. (U.S. Patent 3,291,677) and McCormack et al. (U.S. Patent 5,674,742) and optionally Igaue et al. (JP 2-74254 and see also the abstract).

Tsuchiya discloses a process for manufacturing a water-absorbing composite such as for a diaper or sanitary napkin including spraying an aqueous monomer solution containing acrylic acid and/or its salt on a nonwoven fibrous substrate to apply droplets of the aqueous monomer solution on the fiber constituting the substrate and polymerizing the monomers in the droplets to form a water-absorbing composite in which water-absorbing resin particles adhere to the fiber constituting the substrate (Column 1, lines 19-23 and Column 4, lines 45-56 and Column 6, lines 31-35 and Column 8, lines 43-46). Tsuchiya does not specifically teach the nonwoven fibrous substrate is heat-raised. It is well known in the art of providing a nonwoven fibrous substrate to a process for manufacturing for example a diaper or sanitary napkin that the substrate is compacted during storing and shipping and heat-raised at the process for manufacturing such that the substrate is easy to handle and conveniently transported as provided to the process for

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manufacturing as shown by either one of Newkirk or Coates (Column 1, lines 5-14 and Column 6, lines 62-68 and Column 7, lines 1-28 of Newkirk and Column 1, lines 20-25 and Column 2, lines 34-45 of Coates). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the nonwoven fibrous substrate in Tsuchiya a heat-raised nonwoven fibrous substrate well taken in the art as easy to handle and conveniently transported as provided to a process of manufacturing of the type taught by Tsuchiya as suggested by either one of Newkirk or Coates.

Tsuchiya does not specifically teach thermo-compressing the water-absorbing composite by passing the water-absorbing composite between a pair of rollers, wherein at least one of the pair of rollers has a surface with an uneven pattern, it being noted Tsuchiya teach known finishing steps such as shaping the composite are performed (Column 8, lines 40-49). Well taken finishing operations for fibrous nonwoven substrates such as for a diaper or sanitary napkin include shaping the substrate by passing the substrate between a pair of rollers, wherein at least one of the pair of rollers has a surface with an uneven pattern, to thermo-compress the substrate and form an aesthetic pattern or improve properties such as strength, softness, etc. as shown by McCormack (Column 1, lines 14-24 and Column 4, lines 26-35 and Column 7, lines 28-37 and Column 8, lines 3-7). It is further known that thermo-compressing the composite increases its water absorbing properties as shown by Igaue (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in Tsuchiya as modified by Newkirk or Coates a well taken thermo-compressing finishing operation for forming an aesthetic pattern on the composite or improve properties such as strength, softness, etc. of the composite

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as shown by McCormack such thermo-compression finishing also increasing the water absorbing properties of the composite as optionally shown by Igaue.

Regarding claims 9 and 10, Tsuchiya teaches the amount of water-absorbing resin particles adhering to the fibrous substrate is 10 to 500 g/m² (Column 9, lines 36-38) wherein it would have been obvious to one of ordinary skill in the art at the time the invention was made to experimentally determine the optimal amount within this range as a function of the water-absorptive properties of the composite.

Regarding claim 11, Tsuchiya teaches the aqueous monomer solution includes a crosslinking agent (Column 5, lines 40-58) wherein it would have been obvious to one of ordinary skill in the art at the time the invention was made to experimentally determine the amount of crosslinking agent in the solution as a function of adequately crosslinking the monomers wherein because the monomers taught by Tsuchiya are the same as those used by applicants one would expect the amount of crosslinking agent to be the same.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya, Newkirk or Coates, McCormack, and optionally Igaue as applied to claims 2 and 9-11 above, and further in view of Shiba et al. (U.S. Patent 4,652,484).

Tsuchiya, Newkirk or Coates, McCormack, and optionally Igaue as applied above teach all of the limitations in claim 12 except for a specific teaching of the tensile strength of the nonwoven fabric. Shiba are exemplary of a nonwoven fabric for water-absorbing composites such as a diaper or sanitary napkin having a tensile strength of 250 g/25mm sufficient to resist breakage during use (Column 2, lines 41-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to experimentally determine the tensile

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strength of the nonwoven fabric in Tsuchiya as modified by Newkirk or Coates, McCormack, and optionally Igaue as a function of the desired strength of the composite wherein nonwovens with tensile strengths of 250 g/25 mm are considered sufficient to resist breakage during use as shown by Shiba.

Response to Arguments

5. Applicant's arguments with respect to claims 2 and 9-12 have been considered but are moot in view of the new ground(s) of rejection.

In view of applicants amendment the previous 35 USC 112 rejections have been overcome. The new limitations are addressed above.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571)272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John L. Goff/
Primary Examiner, Art Unit 1791